

(ASIC), a digital signal processor (DSP), an embedded processor, a field programmable gate array (FPGA), and/or combinations thereof. These various implementations may include implementation in one or more computer programs that are executable and/or interpretable on a programmable system including at least one programmable processor, which may be special or general purpose, coupled to receive data and instructions from, and to transmit data and instructions to, a storage system, at least one input device, and at least one output device. These computer programs (also known as programs, software, software applications, applications, components, program code, computer program code, or code) include machine instructions for a programmable processor, and may be implemented in a high-level procedural and/or object-oriented programming language, and/or in assembly/machine language. As used herein, the term “machine-readable medium” refers to any computer program product, computer-readable medium, computer-readable storage medium, apparatus and/or device (e.g., magnetic discs, optical disks, memory, Programmable Logic Devices (PLDs)) used to provide machine instructions and/or data to a programmable processor, including a machine-readable medium that receives machine instructions. Similarly, systems are also described herein that may include a processor and a memory coupled to the processor. The memory may include one or more programs that cause the processor to perform one or more of the operations described herein.

**[0046]** Although a few variations have been described in detail above, other modifications or additions are possible. In particular, further features and/or variations may be provided in addition to those set forth herein. Moreover, the implementations described above may be directed to various combinations and subcombinations of the disclosed features and/or combinations and subcombinations of several further features disclosed above. In addition, the logic flow depicted in the accompanying figures and/or described herein does not require the particular order shown, or sequential order, to achieve desirable results. Other embodiments may be within the scope of the following claims.

**1-19.** (canceled)

**20.** A method comprising:

determining mobility information representative of a mobility of a user equipment during an idle state and a connected state of the user equipment; and  
sending the mobility information to a node of a wireless network, wherein the mobility information comprising a history of one or more cells visited by the user equipment.

**21.** The method as in claim 20, wherein the history includes information representative of a quantity of consecutive state transitions from an idle mode to a connected mode experienced by the user equipment in a current cell.

**22.** The method as in claim 20, wherein the history includes information representative of a quantity of connection releases by the user equipment in a current cell.

**23.** The method as in claim 20, wherein sending the mobility information further comprises sending the mobility information when the user equipment is in a connected mode or when it enters the connected state.

**24.** The method as in claim 20, wherein the history includes time of staying in the one or more cells.

**25.** The method as in claim 20, wherein the history includes cell identifiers of the one or more cells.

**26.** The method as in claim 25, wherein the cell identifiers of the one or more cells are in the form of physical cell identifier or cell global identifier.

**27.** The method as in claim 20, further comprising setting a quantity of cells that are to be included in the history.

**28.** The method as in claim 20, wherein the history includes user equipment staying in outside of the one or more cells.

**29.** An apparatus comprising:

at least one processor; and

at least one memory including computer program code, the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following:

determine mobility information representative of a mobility of a user equipment during an idle state and a connected state of the user equipment; and

send mobility information to a node of a wireless network, wherein the mobility information comprising a history of cells visited by the user equipment.

**30.** The apparatus as in claim 29, wherein the mobility information includes information representative of a quantity of consecutive state transitions from an idle mode to a connected mode experienced by the user equipment in a current cell.

**31.** The apparatus as in claim 29, wherein the mobility information includes information representative of a quantity of connection releases by the user equipment in a current cell.

**32.** The apparatus as in claim 29, wherein the mobility information includes information representative of a quantity of mobility state transitions occurring in a current cell during a time period.

**33.** The apparatus as in claim 29, wherein the mobility information includes information representative of a count of state transitions in a plurality of cells.

**34.** The apparatus as in claim 29, wherein the history includes time of staying in the one or more cells.

**35.** The apparatus as in claim 29, wherein the history includes cell identifiers of the one or more cells.

**36.** The apparatus as in claim 35, wherein the cell identifiers of the one or more cells are in the form of physical cell identifier or cell global identifier.

**37.** The apparatus as in claim 29, wherein the at least one memory and the computer program code are further configured, with the at least one processor, to cause the apparatus at least to set a quantity of cells that are to be included in the history.

**38.** The apparatus as in claim 29, wherein the history includes user equipment staying in outside of the one or more cells.

**39.** A non-transitory computer-readable storage medium including code, which when executed by at least one processor provides operations comprising:

determining mobility information representative of a mobility of a user equipment during an idle state and a connected state of the user equipment; and

sending mobility information to a node of a wireless network, wherein the mobility information comprising a history of one or more cells visited by the user equipment.

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